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(54) Title: A SECONDARY STRUCTURE DEFINING DATABASE AND METHODS FOR DETERMINING IDENTITY AND GEOGRAPHIC ORIGIN OF AN UNKNOWN BIOAGENT THEREBY

(57) Abstract: The present invention relates generally to the field of investigational bioinformatics and more particularly to secondary structure defining databases. The present invention further relates to methods for interrogating a database as a source of molecular masses of known bioagents for comparing against the molecular mass of an unknown or selected bioagent to determine either the identity of the selected bioagent, and/or to determine the origin of the selected bioagent. The identification of the bioagent is important for determining a proper course of treatment and/or irradiation of the bioagent in such cases as biological warfare. Furthermore, the determination of the geographic origin of a selected bioagent will facilitate the identification of potential criminal identity.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/00386

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G01N 33/48(2006.01);C12P 19/34(2006.01)

USPC: 702/19;435/91.2

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 702/19; 435/91.2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MUDDIMAN et al., Anal. Chem., 1996, Vol. 68, No. 21, pages 3705-3712.	1-3
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Y		4-20
Y	Fred, et al., J. Am. Soc. Mass Spectrom., 1998, Vol. 9, pages 92-95.	1-20
X	Muddiman et al., Anal. Chem., 1997, Vol. 69, No. 8, pages 1543-1549	1-7, 10, 20
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Y		8-9, 11-19
Y,P	US 6,553,317 (LINCOLN et al) 22 April, 2003 (22.04.2003).	11-19
Y,P	US 6,389,428 (RIGAULT et al) 14 May 2002 (14.5.2002).	1-20



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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/00386

Continuation of B. FIELDS SEARCHED Item 3:

East, STN, Biosis, Compuscience, Biotechno, Biotechds, Medline, Embase, WPI covering search hybridizing, PCR, amplificaiton, comparing mass, identify, database, master database, remote ordering, remote user, mass spectrometer, mass spectra, statistical algorithm.

INTERNATIONAL SEARCH REPORT

International application No.
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	WO 01/57518 (GOODNOUGH) 9 August 2001 (9.8.2001), pages 11-14, 16-19, 29	1-20
Y,P	US 6,393,367 (TANG et al) 21 May 2002 (21.5.2002).	8-9
Y	Holm et al., Bioinformatics, 1998, Vol. 14, No. 5, pages 423-429.	1-20